

MILITARY SPECIFICATION

RESISTORS, VARIABLE, NON-WIRE-WOUND, PRECISION
GENERAL SPECIFICATION FOR

This amendment forms a part of MIL-R-39023A, dated 3 June 1974,
and is approved for use by all Departments and Agencies of the
Department of Defense.

PAGE 1

1.2.1 Under first "A", delete and substitute: "Resistance temperature characteristic, maximum ambient temperature and taps (1.2.1.2)."

PAGE 2

1.2.1.2, delete and substitute:

"1.2.1.2 Resistance temperature characteristic, maximum ambient temperature, and taps. The resistance temperature characteristic, maximum ambient temperature, and taps are identified by a single letter in accordance with table I and table IA."

"TABLE I. Resistance temperature characteristic, maximum ambient temperature and taps. 1/

Symbol	Ambient temperature with rated load in °C	Ambient temperature with zero load in °C	Tap located at center of resistance element (±1°C) 2/
A	70	125	Not applicable
B	70	125	Applicable

1/ The test temperature and maximum resistance change shall be as specified in table IA.

2/ Applicable only to linear function resistors."

PAGE 5

* Section 2, delete and substitute:

"2. APPLICABLE DOCUMENTS

"2.1 General. The documents listed in this section are specified in sections 3 and 4 of this specification. The section does not include documents cited in other sections of this specification or recommended for additional information or as examples. While every effort has been made to ensure the completeness of this list, document users are cautioned that they must meet all specified requirements documents cited in sections 3 and 4 of this specifications, whether or not they are listed.

MIL-R-39023A
AMENDMENT 3

"2.2 Government documents.

"2.2.1 Specifications, standards, and handbooks. The following specifications, standards, and handbooks form a part of this document to the extent specified herein. Unless otherwise specified, the issues of these documents are those listed in the issue of the Department of Defense Index of Specifications and Standards (DoDISS) and supplement thereto, cited in the solicitation (see 6.2).

"STANDARDS

"DEPARTMENT OF DEFENSE

"MIL-STD-202 - Test Methods for Electronic and Electrical Components Parts.
MIL-STD-810 - Environmental Test Methods for Aerospace and Ground Equipment.
MIL-STD-1282 - Marking of Electrical and Electronic Parts.

"HANDBOOKS

"DEPARTMENT OF DEFENSE

"Handbook H28 - Screw-Thread Standards for Federal Services.

"(Unless otherwise indicated, copies of the above specifications, standards, and handbooks are available from the Defense Printing Service Detachment Office, Building 4D, 700 Robbins Avenue, Philadelphia, PA 19111-5094.)

"2.3 Non-Government publications. The following documents form a part of this document to the extent specified herein. Unless otherwise specified, the issues of the documents which are DoD adopted are those listed in the DoDISS cited in the solicitation. Unless otherwise specified, the issues of documents not listed in the DoDISS are the issues of the documents cited in the solicitation (see 6.2).

"AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

"ANSI/NCSL Z540-1 - Calibration Laboratory and Measuring and Test Equipment, General Requirements for.

"INTERNATIONAL ORGANIZATION for STANDARDS (ISO)

"ISO 10012-1 - Quality Assurance Requirements for Measuring Equipment, Part 1: Meteorological Confirmation System for Measuring Equipment.

"(Application for copies should be addressed to the American National Standards Institute, 11 West 42nd Street, New York, NY 10036-8002.)

"(Non-Government standards and other publications are normally available from the organizations that prepare or distribute the documents. These documents also may be available in or through libraries or other informational services.)

"2.4 Order of precedence. In event of a conflict between the text of this document and the references cited herein (except for related associated specifications, specification sheets, or MS sheets.), the text of this document takes precedence. Nothing in this document, however, supersedes applicable laws and regulations unless a specific exemption has been obtained."

PAGE 8

3.14, line 4, delete "(see 4.3.2, 3.1, and 6.1.2)" and substitute "(1.2.1.2, table I, 3.1, 4.3.2, and 6.1.2)".

PAGE 11

* 4.1.1, delete and substitute:

"4.1.1 Test equipment and inspection facilities. The supplier shall establish and maintain a calibration system in accordance with ANSI/NCSL Z540-1, ISO-10012-1, or equivalent system as approved by the qualifying activity."

MIL-R-39023A
AMENDMENT 3

PAGE 14

4.4.4, delete and substitute:

"4.4.4 Retention of qualification. Every 6 months, the manufacturer shall compile a summary of the results of quality conformance inspection in the form of a retention of qualification report, and forward it to the qualifying activity within 30 days from the end of the reporting period as the basis of continued qualification approval. In addition, the manufacturer shall immediately notify the qualifying activity whenever the group B inspection data indicates failures of the qualified product to meet the requirements of this specification. Continuation shall be based on the evidence that over the 6 month period the following has been met:

- a. The manufacturer has not modified the design of the item.
- b. The specification requirements for the item has not been amended so far as to affect the character of the item.
- * c. Lot rejection for group A inspection does not exceed the group A sampling plan.
- d. The requirements for group B inspection are met.

When group B requirements were not met and the manufacturer has taken corrective action satisfactory to the government, group B retesting shall be instituted. A summary of the retesting shall be forwarded to the qualifying activity within 30 days after completion of the retest. All reports are to be certified by a responsible company official and the government inspector."

PAGE 15

TABLE X, delete and substitute:

"TABLE X. Group A inspection."

Test	Requirement paragraph	Method paragraph	Number of samples
Dimensions	3.1	4.6.1.1	See 4.5.1.2.1
lateral runout	3.7	4.6.3	
Shaft runout	3.8	4.6.4	
Pilot-diameter runout	3.9	4.6.5	
Shaft radial play	3.10	4.6.6	
Shaft end play	3.11	4.6.7	
Torque	3.13.1	4.6.9.1	
Marking	3.33	4.6.1.1	
Workmanship	3.34 to 3.34.2 inclusive	4.6.1.1	
DC resistance	3.6	4.6.2	
Taps (when applicable)	3.14	4.6.10	
Dielectric withstanding voltage (atmospheric)	3.15	4.6.11	
Insulation resistance	3.16.1	4.6.12	
Function conformity tolerance	3.17.1.1	4.6.13	
Mechanical backlash	3.18	4.6.14	
End voltage	3.20	4.6.16	
Output smoothness	3.21.1	4.6.17	
Terminal strength	3.22	4.6.18	

MIL-R-39023A
AMENDMENT 3

Following TABLE X, add:

"TABLE X-I. Group A sampling plan.

Lot size	Sample size
2 to 13	100%
14 to 150	13
151 to 280	20
281 to 500	29
501 to 1,200	34
1,201 to 3,200	42
3,201 to 10,000	50
10,001 to 35,000	60
35,001 to 150,000	74
150,001 to 500,000	90
500,001 and over	102

4.5.1.2.1, delete and substitute:

"4.5.1.2.1 Sampling plan. A sample of parts shall be randomly selected in accordance with table X-I. If one or more defects are found, the lot shall be rescreened and defects removed. After screening and removal of defects, a new sample of parts shall be randomly selected in accordance with table X-I. If one or more defects are found in the second sample, the lot shall be rejected and shall not be supplied to this specification."

4.5.1.2.2, delete in its entirety.

PAGE 30

* Section 5, delete and substitute:

"5. PACKAGING

"5.1 Packaging. For acquisition purposes, the packaging requirements shall be as specified in the contract or order (see 6.2). When actual packaging of materiel is to be performed by DoD personnel, these personnel need to contact the responsible packaging activity to ascertain requisite packaging requirements. Packaging requirements are maintained by the Inventory Control Point's packaging activity within the Military Department or Defense Agency, or within the Military Department's System Command. Packaging data retrieval is available from the managing Military Department's or Defense Agency's automated packaging files, CD-ROM products, or by contacting the responsible packaging activity."

The margins of this amendment are marked with an asterisk to indicate where changes from the previous amendment were made. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations and relationship to the last previous amendment.

Custodians:
Army -CR
Navy - EC
Air Force - 85

Preparing activity:
DLA - CC

(Project 5905-1462)

Review activities:
Army - AR, AT, AV, ME, MI
Navy - AS, CG, MC, OS
Air Force - 17, 19, 80